(No Model.)

W. DIEBEL.

METHOD OF KNITTING STOCKINGS.

No. 483,955. Patented Oct. 4, 1892.

FIG. 1.

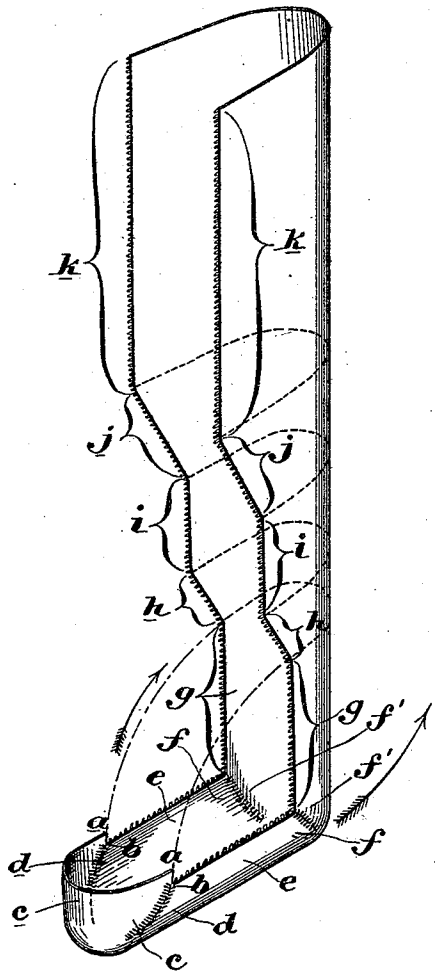
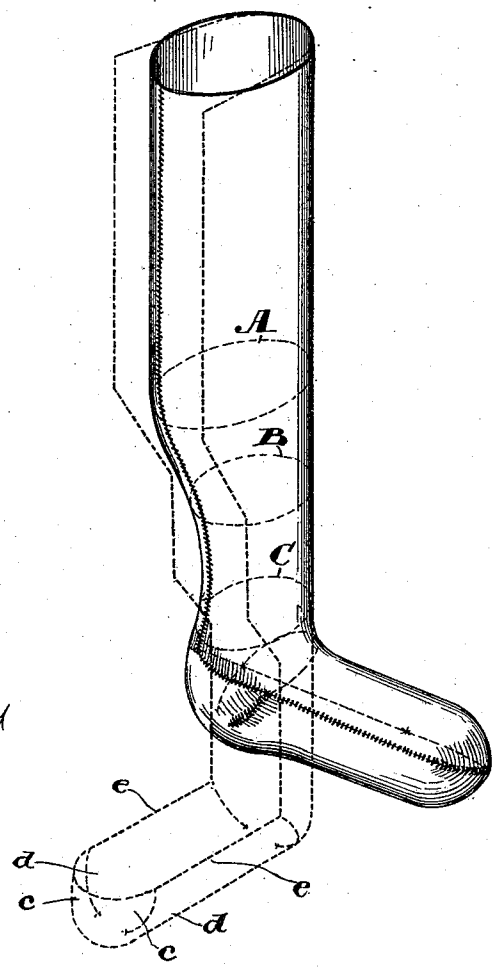


FIG. 2.



WITNESSES:
David B. Williamson
John Gibson

INVENTOR:
William Diebel
by his attorney
P. B. Harding

UNITED STATES PATENT OFFICE.

WILLIAM DIEBEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO FREDERICK BUCKHALTER AND VICTOR C. DRIESBACH.

METHOD OF KNITTING STOCKINGS.

SPECIFICATION forming part of Letters Patent No. 483,955, dated October 4, 1892.

Application filed April 23, 1890. Serial No. 349,149. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DIEBEL, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Methods of Knitting Stockings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The object of my improved method is to construct a stocking which will be full-fashioned—that is, be rounded off or tapered to conform to the calf of the leg, the taper to be formed by knitting and not by cutting.

In the drawings, Figure 1 is a perspective view illustrating the method of forming the stocking. Fig. 2 is a perspective view of a finished stocking, the dotted lines showing the stocking during construction.

I will describe the steps of my improved method as performed upon an ordinary Branson knitter. I do not intend to limit myself to any particular mechanism for carrying out my improved method. If a Branson knitter be used, all the needles are not in use at any time. I first knit a straight portion, represented by *a a b b* in the drawings, Fig. 1. I then commence to construct the heel portion, which is constructed in the ordinary manner, to wit: by first narrowing down the knitted fabric by dropping off a needle at each side, or, rather, throwing a needle out of action at each side at each operation of the knitting-cam. One half of the heel is thus formed in the ordinary manner, which is represented in the drawings by the letters *c c*. The needles are then consecutively thrown into action until the same number of needles are in action as were in action at the beginning of the formation of the heel, thus forming the other half of the heel, (represented by *d d* in the drawings.) One half *e e* of the foot portion is then knitted, the same number of needles being used throughout—that is, it is of the same width throughout. The toe portions *f f f' f'* are then formed in the same manner as the heel was formed. I then knit on the same width a distance equal to the length of the foot, forming the other half *g g* of the foot. The fabric is then widened out by adding a needle at each operation of the knitting-cam until enough stitches are added to equal the width of the heel, said widened portion being represented by *h h* in the drawings. I then knit straight of the same width to form the ankle portion of the stocking. (Represented by *i i*.) The knitting is then widened by adding a stitch at each operation of the knitting-cam to fashion the calf of the stocking, as represented at *j j* in the drawings. When this desired width has been obtained to the calf, the stocking is then completed by forming the leg of the same width throughout, as represented by *k k* in the drawings.

As may be seen I have no tubular-knitted fabric. I therefore at no time use the entire number of needles in the circle, always leaving at the greatest width—to wit, the leg portion—sufficient needles out of action or a sufficient space beyond the greatest number of needles in action at any one time to give the knitting-cams clearance, the knitting-cams always reciprocating instead of revolving.

As may be seen, I have formed a full-fashioned stocking, with the exception of the beginning, with a selvage edge. The stocking is turned over, as shown in Fig. 1, denoted by the arrows, and the stocking put upon the ordinary machine in use for taking up selvage loops. The portion at the beginning of the stocking is placed upon this machine at the point where the heel was commenced to be formed and can be unraveled until it reaches the threads which are upon the needles of this machine, so that I am enabled to form a stocking in which the full fashion of the calf is formed by knitting and not by cutting. I can, if desired, instead of making the ankle straight, commence to taper directly after the foot portion is formed, making a gradual taper up to the point at the end of the calf of the stocking.

In Fig. 2 the dotted lines show the stocking in formation or construction, while the full lines show the stocking after it is bent together and sewed. The circles A, B, and C show the different sizes of the goods as knitted.

My invention can be carried out upon any machine which is capable of knitting this class of goods.

Having now fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

1. The hereinbefore-described method of forming a stocking, which consists in knitting the heel in the ordinary manner, then knitting one-half the foot of the same width throughout, then forming the toe in the ordinary manner, then knitting a straight portion of the same width to conform to the half of the foot already formed, then widening out the knitting to equal the number of stitches in the heel, then knitting the goods straight to form the ankle, then increasing the width of the goods gradually to form the calf of the leg, then knitting the goods of the same width to form the leg, and seaming together the edges of the web.

2. The hereinbefore-described method of forming a stocking, which consists in knitting the heel in the ordinary manner, then knitting one-half the foot of the same width throughout, then forming the toe in the ordinary manner, then knitting a straight portion of the same width to conform to the half of the foot already formed, then widening out the knitting to equal the number of stitches in the heel, then knitting the ankle and calf portions and in the knitting widening the fabric to the greatest width of the calf, then knitting the goods of the same width to form the leg, and seaming together the edges of the web.

In testimony of which invention I have hereunto set my hand.

WILLIAM DIEBEL.

Witnesses:
GEO. W. REED,
FRANK S. BUSSER.